

CLAIMS

WHAT IS CLAIMED IS:

- 1 1. An image capture system comprising:
2 an image input for obtaining image information; and
3 a processing unit coupled to the image input for determining an image
4 metric on the image information, the processing unit for initiating a
5 capture sequence when the image metric meets a predetermined
6 condition.

- 1 2. The image capture system of claim 1, wherein the image metric includes
2 photometric data, and wherein the predetermined condition is met when the
3 photometric data reaches a predetermined threshold.

- 1 3. The image capture system of claim 1, wherein the image metric includes
2 light intensity information, and wherein the predetermined condition is met when the
3 light intensity information reaches a predetermined threshold.

- 1 4. The image capture system of claim 1, wherein the image metric includes
2 light intensity information, and wherein the predetermined condition is related to a
3 rate of change of the light intensity information.

1 5. The image capture system of claim 1, wherein the image metric includes
2 colorimetric data, and wherein the predetermined condition is met when the
3 colorimetric data reaches a predetermined threshold.

1 6. The image capture system of claim 1, wherein the image metric includes
2 colorimetric data, and wherein the predetermined condition is related to a rate of
3 transition of the colorimetric data.

1 7. The image capture system of claim 1 further comprising:
2 a port for receiving parameters specifying the predetermined condition.

1 8. The image capture system of claim 1 further comprising:
2 an interface for allowing input of the predetermined condition.

1 9. The image capture system of claim 1, wherein the image input is an image
2 sensor.

1 10. The image capture system of claim 1 further comprising:
2 a storage unit for storing the image information during the capture
3 sequence.

1 11. A method of selecting an image, the method comprising the steps of:

- 2 (a) specifying an image profile;
- 3 (b) generating a histogram from an input image;
- 4 (c) determining whether the histogram of the input image matches the
- 5 image profile;
- 6 (d) if the histogram of the step (c) does not match the image profile, then
- 7 repeating steps (b) and (c) for subsequent input images until the
- 8 histogram of one of the subsequent input images matches the image
- 9 profile.

- 1 12. The method of claim 11 further comprising the steps of:
- 2 (e) responsive to a match between one of the input images and the image
- 3 profile, saving to a storage medium the image corresponding to the
- 4 histogram that matches the image profile.

- 1 13. The method of claim 12 further comprising the steps of:
- 2 (f) saving to the storage medium one or more images captured
- 3 chronologically preceding the image saved in the step (e).

- 1 14. The method of claim 11 wherein the input image of the step (b) is
- 2 provided by an image sensor in an image capture device.

1 15. The method of claim 11, wherein the steps (a)-(d) are performed
2 responsive to a search for a target image having the image profile, the method
3 further comprising the steps of:

4 (e) indicating that the target image has been found.

1 16. The method of claim 11 wherein the input image of the step (b) is
2 provided from an input from a video stream.

1 17. A method of detecting that an image meets a predetermined image profile,
2 the method comprising the steps of:

3 (a) sampling a first image;

4 (b) determining an image metric for the first image;

5 (c) comparing the image metric for the first image with the
6 predetermined image profile; and

7 (d) storing the first image when the image metric for the first image
8 matches the predetermined image profile.

1 18. The method of claim 17 wherein the image metric comprises a luminosity
2 component, and the predetermined image profile is matched when the luminosity
3 component reaches a predetermined threshold.

1 19. The method of claim 17 wherein the image metric comprises a color
2 component, and the predetermined image profile is matched when the color
3 component reaches a predetermined threshold.

1 20. The method of claim 17 wherein the predetermined image profile is
2 generated by the steps of:

- 3 (i) creating a mock up image;
4 (ii) determining an image metric associated with the mock up image;
5 (iii) selecting one or more threshold values; and
6 (iv) forming the predetermined image profile from the selected threshold
7 values.

1 21. A method of detecting an image comprising the steps of:

- 2 (a) sampling two images at different points in time;
3 (b) determining an image metric for the two images;
4 (c) measuring a rate of change of the image metric;
5 (d) indicating that there is a match with an image profile if the rate of
6 change of the image metric matches a first predetermined condition.

1 22. The method of claim 21 further comprising the step of:

- 2 (e) sampling a subsequent image;
3 (f) determining a second image metric for the subsequent image;

4 (g) measuring a rate of change of the second image metric;
5 (h) indicating that there is a match with the image profile if the rate of
6 change of the second image metric matches a second predetermined
7 condition.

1 23. The method of claim 21 wherein the step (d) of indicating that there is a
2 match with an image profile is accomplished by triggering an image capture
3 sequence.

1 24. An image capture system comprising:
2 a sensor for capturing image data;
3 a histogram unit for generating an image metric from the image data
4 captured by the sensor; and
5 a memory unit for storing the image data when the image metric meets a
6 predetermined condition.

1 25. The image capture system of claim 24 further comprising:
2 a timing device coupled to the histogram unit for determining a rate of
3 change of the image metric.

1 26. A method of creating an image profile for selecting an image, the method
2 comprising the steps of:

- 3 (a) determining image metrics from two images;
- 4 (b) identifying one or more of the image metrics that differ between the
- 5 two images by at least a predetermined amount; and
- 6 (c) determining one or more thresholds based on the one or more image
- 7 metrics identified in the step (b).